

PATENT
Atty Docket No. H103025USU (P04009US)

II. REMARKS

Attorney for Assignee wants begin with an expression of appreciation for the tone and the content of the First Office Action. It is of great value to have the Office provide specific citations to portions of references, especially, non-patent literature when the Office makes a case for a particular rejection. While we may not always agree with the conclusion of the Office, it is advantageous to start with a clear understanding of how the Office is mapping claim elements to a piece of cited art. Attorney for Assignee is pleased that the Office recognizes the inventive aspects of the vast majority of the pending claims as noted in detail below. As set forth below, Assignee is eager to advance the claims to issuance and is willing to make adjustments to the claim language to expedite that process.

STATUS SUMMARY

Claims 1-72 are pending in the present application. All claims stand rejected.

CLAIM REJECTIONS

The Examiner rejected all of the claims 35 U.S.C. §101. The Office and the courts are struggling to balance the Constitutional mandate "To promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries;" with good faith efforts to find the actual limits on the scope of the power to issue patents. Attorney for Assignee recognizes that these policy choices are beyond the control of the Examiner and seeks to expedite prosecution by amending the independent claims to make them clearly allowable while retaining the option to seek claims in a subsequent application that are not unduly encumbered.

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In addition to the §101 rejection, a small subset of claims were rejected under 35 U.S.C. §102(a) as being anticipated by the article authored by Bangtsson et al, hereinafter Bangtsson.

ALLOWABLE SUBJECT MATTER

Assignee appreciates the Examiner's indication that 2-14, 16, 19-28, 30, 33-37, 39-43, 45, 47-57, 59, 62-71 are inventive over the art of record (as the 102 rejection applied only to claims 1, 15, 17, 18, 29, 31, 32, 38, 44, 58 60, 61, and 72). As detailed below, the claims conveyed by this response address the concerns of the Office with respect to both Section 101 and the Bangtsson reference.

A. Changes to CLAIMS 1-17

Claim 1 has been amended to address both the 101 and 102 concerns.

The Office notes the MPEP focus on whether a claim recites a result that qualifies as a useful, concrete and tangible result. Both the amended preamble and output of the claimed method now call for the creation of a waveguide. This change addresses the 101 concerns. While not the focus of the present patent application, the act of creating a waveguide based on the creative process for designing a waveguide is supported by the application as filed. Examples of this support can be found at: A) paragraph [0079] where measurements are identified as coming from a prototype fitting the design profile of the waveguide profile set forth in FIGS. 15-17 and B) paragraph [0011] where design iterations are made before the prototype stage.

The Office noted in the Office Action that both claim 4 and claim 5 as originally submitted were beyond the 102 rejection based on Bangtsson. In order to provide a common

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starting point for both of these claims while adding additional detail to claim 1, claim 1 has been amended to specify that the design metric is based upon acoustic impedance. The term acoustical impedance was in the original application and claims as filed. In paragraph [0007] the phrase was introduced as follows: "In the acoustical domain, waveguides contain impedance along the profile with resistive and reactive components." Thus, the use of the term acoustical impedance in amended claim 1 does not introduce new matter.

The claims that depend directly or indirectly from claim 1 have been amended as necessary to reference the changes in claim 1. As these changes do not add new matter to claim 1, they do not add new matter to the dependent claims. An instance of the word "the" has been added to claim 7. Claims 11 and 12 have been adjusted to adjust antecedent basis.

B. Changes to CLAIMS 18-31

Independent claim 18 has been amended along the same lines as the changes made to independent claim 1. For the reasons set forth above with respect to the changes made to claim 1, these changes do not add new matter. Claims that depend directly or indirectly from claim 18 have been amended to be consistent with the changes to claim 18. The changes to the dependent claims do not add new matter if they do not add new matter to the independent claim 18. One instance of "the" has been added to claim 22. Claim 27 has been adjusted for antecedent basis.

C. Changes to CLAIMS 32-37

Independent claim 32 has been amended along the same lines as the changes made to independent claims 1 and 18. For the reasons set forth above with respect to the changes made to claim 1, these changes do not add new matter. Claims that depend directly or indirectly from

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claim 32 have been amended to be consistent with the changes to claim 32. The changes to the dependent claims do not add new matter if they do not add new matter to the independent claim 32.

D. Changes to CLAIMS 38-43

Independent claim 38 has been amended along the same lines as the changes made to independent claims 1, 18, and 32. For the reasons set forth above with respect to the changes made to claim 1, these changes do not add new matter. Claims that depend directly or indirectly from claim 38 have been amended to be consistent with the changes to claim 38. The changes to the dependent claims do not add new matter if they do not add new matter to the independent claim 38. An instance of "the" has been added to claim 39. Claim 42 has been adjusted for antecedent basis.

E. Changes to CLAIMS 44-60

The Examiner noted that a software claim that lacks 101 subject matter does not gain 101 subject matter by being written as a signal-bearing medium claim. In order to expedite the passage of all claims to issuance, Assignee amends claim 44 to call for executing instructions obtained from such a signal-bearing medium to design a waveguide and then creating the designed waveguide. For sake of completeness, we noted that amending the claim to include the execution of instructions from signal-bearing medium does not add new matter as paragraphs [0089] and [0090] of the application as originally filed include a discussion of executing instructions from a signal-bearing medium. As discussed above, creating a waveguide based on the design process is referenced in the application as filed and thus does not add new matter. Assignee has also added the phrase "based upon acoustic impedance" to describe the design

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metric used in the claim. For reasons discussed above, "acoustic impedance" does not add new matter to the claim.

Claims 45-60 which depend directly or indirectly from claim 44 have been revised to be consistent with amended claim 44. Changes to promote consistency between a dependent claim and an independent claim do not add new matter if the changes to the independent claim do not add new matter. Claims 50 and 58 make minor modifications to add and subtract the word "the" and do not add new matter through making those minor changes.

F. Changes to CLAIMS 61-72

Claim 61 has been amended in a manner similar to the amendments to claim 44 and for the reasons set forth in the discussion of the amendment to claim 44, do not add new matter.

Claims 62-72 which depend directly or indirectly from claim 61 have been revised to be consistent with amended claim 61. Changes to promote consistency between a dependent claim and an independent claim do not add new matter if the changes to the independent claim do not add new matter. Claim 70 has been adjusted for antecedent basis. Claim 72 has removed an instance of the word "the".

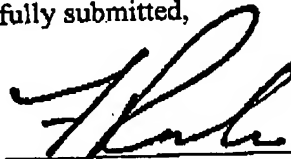
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III. CONCLUSION

Favorable consideration is respectfully requested in view of the following amendments and remarks. The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to our Deposit Account No. 50-2542. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

Date: 9/20/06



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